

and wherein the elements are selected from the group consisting of silicon, zinc, aluminum, tin, boron, germanium, gallium, lead, the transition metals, and lanthanides and actinides;

- (B) 0-90 wt.% of at least one conventional binder; and
- (C) 0-95 wt.% of at least one conventional additive, solvent, pigment and/or filler;

wherein the element-oxygen network of said reactive particles has at least one reactive function R_1 and optionally at least one non-reactive and/or at least one partially reactive functions R_2 and R_3 bound by way of an oxygen of the element oxygen-network to the surface of said reactive particles, the reactive function R_1 being contained in an amount up to 98 wt.% of said reactive particles and the non-reactive and/or partially reactive functions R_2 and R_3 being contained in an amount from 0-97 wt.% of said reactive particles;

wherein R_1 comprises radicals selected from the group consisting of metal acid esters, NCO, urethane groups, epoxide groups, epoxy, carboxylic acid anhydride, C=C double bond systems, OH, alcohols bound by way of oxygen, alcohols bound by way of esters, alcohols bound by way of ethers, chelating agents, COOH, NH_2 , NHR_4 , and reactive resin components;

wherein R_2 comprises radicals selected from the group consisting of aromatic compounds, aliphatic compounds, fatty acid derivatives, esters, and ethers;

wherein R_3 comprises resin radicals;

wherein R_4 comprises radicals selected from the group consisting of acrylate, phenol, melamine, polyurethane, polyester, polyester imide, polysulfide, epoxide, polyamide, polyvinyl formal resins, aromatic compounds, aliphatic compounds, esters, ethers, alcoholates, fats, and chelating agents.